

IO-Link
SensorsPhotoelectric
SensorsFiber-optic
Sensors

Standard Fibers

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Communication
Units

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Safety Sensors

Pressure &
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Electrostatic
Sensors

Accessories

SF4C



SF4C

Type 4 · PLe · SIL3

Ultra-slim light curtain safeguards machines without sacrificing productivity

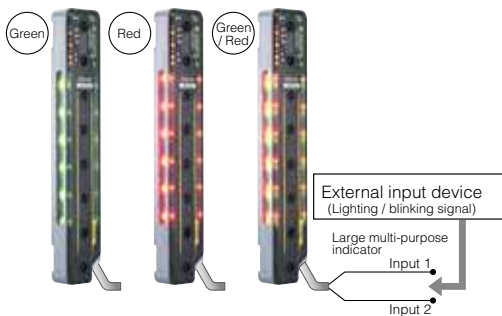
Features

■ Large, built-in, multi-purpose LED indicators

Large LED bars on each side of the light curtain provide a wide visibility indicator that can be customized for various applications by means of independent external inputs. The indicator can be used as an operation indicator (muting) or job indicator, etc.

■ Finger/hand protection

The **SF4C** series covers a sensing height of 160mm to 640mm. This is true for the finger and hand protection types (resolution up to 10 or 20mm).



■ Can be used in a variety of applications for simplified equipment (large multi-purpose indicator)

Wire-saving when connecting to safety devices. Contact outputs such as emergency stop switches or safety door switches can be connected to the light curtain. Also, by using the handy-controller **SFC-HC**, up to three sets of light curtains can be cascade connected for a consolidated safety output.

■ IP67 (IEC)

An IP67 (IEC) rating is achieved with an ultra-slim size for protection from environmental factors.

■ Mutual interference is reduced without need for interference prevention lines

The light curtain is equipped with the ELCA (Extraneous Light Check & Avoid) function, which has been proven to be strong against mutual interference. Because it automatically shifts the scanning time of the light curtain in order to avoid interference, it is not necessary to wire interference prevention lines between machinery.

■ A fast response time of 7ms* for all models

A fast response time of 7ms* for all models regardless of the number of beam channels. This reduces the safety distance as well as the calculation work required for the safety distance among models with different beam channels.

* When connecting safety sensors (light curtains, etc.) to the safety input, the response time will be the total time of connected units.

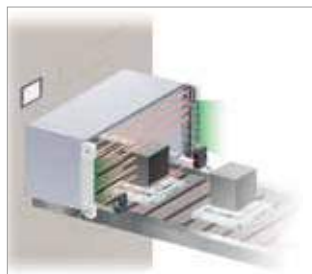
■ Safety, productivity, and cost reduction [muting control function]

The muting sensors and muting lamps can be connected directly to the light curtain. Furthermore, the large multi-purpose indicators can be used as muting lamps, which contribute to less wiring troubles, improvement of safety, productivity, and cost reduction.

Typical applications

Use of internal muting lamp

There is no need to buy and install a separate muting lamp.



Selective muting area

Separate muting control function for each beam channel.



Industry first!

Wire-saving when connecting to safety devices (safety input function).



Technical specifications

Type	Finger protection type	Hand protection type
Model no.	SF4C-F□ (note)	SF4C-H□
Safety category	Type 4, PLe, SIL3	
Sensing height	Depending on types (160 to 640mm)	
Sensing range	0 to 3m	
Resolution	10mm	20mm
Object to be sensed	Min. Ø 14mm (opaque)	Min. Ø 25mm (opaque)
Power supply	24VDC +10/-15%	
Control outputs	OSSD1 and OSSD2 (2x PNP or 2x NPN transistor outputs with open collector, switchable, max. 200mA)	
Response time	ON → OFF max. 9ms / OFF → ON max. 90ms	ON → OFF max. 7ms / OFF → ON max. 90ms
Rated current consumption	Max. 270mA (depending on type)	
Protection	IP67 / IP65 (IEC)	
Ambient temperature	-10 to +55°C	
Material	Polycarbonate	
Connection method	Cable, 5m or 0.5m with connector	
Dimensions (HxWxD)	Hx13.2x30mm (H= protective height)	

Note: For a system configuration, please contact your sales office or service hotline: +49 89 45354-2737

Sensing height

Finger protection type	Model no.		Protective height (mm)	Installation height (mm)	No. of beam axes
	Cable type	Cable with connector			
Finger protection type	SF4C-F15	SF4C-F15-J05	160	160	15
	SF4C-F23	SF4C-F23-J05	240	240	23
	SF4C-F31	SF4C-F31-J05	320	320	31
	SF4C-F39	SF4C-F39-J05	400	400	39
	SF4C-F47	SF4C-F47-J05	480	480	47
	SF4C-F55	SF4C-F55-J05	560	560	55
	SF4C-F63	SF4C-F63-J05	640	640	63

Hand protection type	Model no.		Protective height (mm)	Installation height (mm)	No. of beam axes
	Cable type	Cable with connector			
Hand protection type	SF4C-H8	SF4C-H8-J05	160	160	8
	SF4C-H12	SF4C-H12-J05	240	240	12
	SF4C-H16	SF4C-H16-J05	320	320	16
	SF4C-H20	SF4C-H20-J05	400	400	20
	SF4C-H24	SF4C-H24-J05	480	480	24
	SF4C-H28	SF4C-H28-J05	560	560	28
	SF4C-H32	SF4C-H32-J05	640	640	32

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